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being unpatentable over Bezzi et al. '200 as applied to claims 9-13 and 15 above, and further in view of Takumi et al. and Sanchez et al.

The only remaining rejection is of claims 12 and 15-18 under 35 U.S.C. § 103 as being unpatentable over Bezzi et al. taken with Takumi et al. or Sanchez et al., and further in view of Landis or DeHaven et al. Applicants respectfully traverse this rejection for reasons already proffered on the record, as well as the following.

As noted in the October 14 Amendment and apparently acknowledged by the Examiner, the primary reference Bezzi does not teach or suggest a process of producing aluminum oxide beads. In contrast to the presently claimed invention, Bezzi discloses a method for producing microspheres of uranium oxide using a reactive gas. The gas is blown against the droplets being formed with a vibrating plate, only from one side. As the reactive gas reacts only with a part of the droplets, there is, as a result, insufficient pre-solidification. Consequently, the droplets falling into a liquid are deformed. Thus, even if it were obvious to employ aluminum oxide in the Bezzi process, the resulting aluminum oxide element would not have an optimum spherical bead shape and narrow grain spectrum, in conjunction with suitable porosity and high breaking strength plus low abrasion loss.

The secondary reference Takumi obtains spheres by depositing droplets in an oil bath. As is apparently acknowledged by the Examiner, Takumi does not teach pre-solidification by a reactive gas. It is respectfully submitted therefore that there is nothing in either Bezzi or Takumi to lead persons of ordinary skill to combine these references and find obvious the claimed invention which **requires** "pre-solidifying said droplets in said aqueous ammonia solution, wherein the nozzles are disposed on a ring and said droplets passing said nozzles are pre-solidified with ammonia gas blown from ring interior and ring exterior against said droplets."

The tertiary reference Landis discloses a process for prilling urea by contacting molten urea droplets with a co-current gas stream in a prill tower. As persons skilled in the art would be readily aware, a method of prilling is not comparable with a process for producing aluminum oxide beads. Thus, on this basis alone persons of ordinary skill would not have been motivated to combine Landis with either the primary or secondary references to arrive at Applicants' invention.

In addition, Landis does not teach or suggest a controlled pre-solidification of droplets by using a reactive gas blown against the droplets from all sides. To derive such a teaching from Landis requires an unduly retrospective view of the reference. Applicants believe that it is clear from the face of

this reference that Landis does not make up for the deficiencies of the primary or secondary references.

DeHaven relates to a method for producing droplets from a melt. DeHaven can easily be distinguished from the claimed invention in that DeHaven requires a physical pre-solidification, whereas Applicants' invention utilizes a chemical pre-solidification. Thus, here again, Applicants believe that persons of ordinary skill would not have been motivated to combine DeHaven with either the primary or secondary references to achieve the claimed invention.

In view of the many distinctions between the cited references and the invention and between the cited references themselves, it is respectfully submitted that these references are simply not combinable to achieve the specifically claimed process for producing aluminum oxide beads. Indeed, the cited art does not even recognize the problems solved by Applicants or the benefits achieved by the claimed process. Applicants believe that the Examiner has failed to point where in each of the references persons skilled in the art would have found any motivation to combine these particular references to achieve the specifically recited process claimed. It is submitted that this rejection cannot be maintained, absent an express or implied suggestion of the specifically claimed invention in at least one of the references. In re Levitt, 11 U.S.P.Q.2d 1315, 1316 (Fed. Cir. 1989); Interconnect Planning Corp v. Feil, 774 F.2d 1132,

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1143 (Fed. Cir 1985); In re Laskowski, 871 F.2d 115, 117 (Fed. Cir. 1989).

Persons of ordinary skill could not have known or reasonably speculated that the presently claimed process for producing aluminum oxide could be achieved by routine experimentation from anything disclosed or suggested by the cited art. It is therefore submitted that these rejections do not pass muster under a true Section 103 analysis, since there is no suggestion in any of the cited references that they can be combined to produce the result obtained by the claimed invention. In re Shaffer 229 F.2d 476 (C.C.P.A. 1956).

Applicants further submit that the focus of this Section 103 inquiry must involve consideration of at least two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed invention, and (2) whether the prior art would also have revealed that, in so doing, those of ordinary skill would have a reasonable expectation of success. **Both the suggestion and the reasonable expectation of success must be founded in the prior art, not the applicant's disclosure.** In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991). Applicants reiterate that none of the cited art suggest or convey a reasonable expectation of success for obtaining the claimed process. It is believed that only in the applicants' own disclosure is the suggestion of the invention first articulated with any reasonable expectation of success.

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Applicants suggest therefore that a *prima facie* case of obviousness has not been factually established, and the Examiner is respectfully requested to withdraw the rejection.

In light of the above remarks, it is respectfully submitted that the subject application is in condition for allowance, and a Notice to that effect is earnestly solicited.

Respectfully submitted,

CUSHMAN, DARBY & CUSHMAN, L.L.P.

By

  
Marlana K. Chapin

Reg. No. 35,843

Tel: (202) 861-3711

Fax: (202) 822-0944

KEJ:MKC

1100 New York Avenue, N.W.  
Ninth Floor  
Washington, D.C. 20005-3918  
(202) 861-30002